



SAW Components

SAW IF filter

WCDMA/CDMA2000

Series/type:	B5043
Ordering code:	B39241B5043Z710
Date:	Mar 31, 2006
Version:	2.0



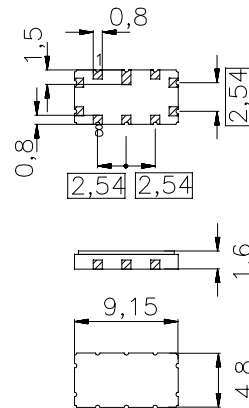
Application

- Low-loss IF filter for WCDMA and CDMA2000
- Usable passband 5.0 MHz



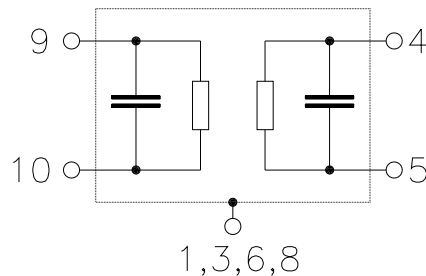
Features

- Package size 9.15 x 4.8 x 1.6 mm³
- Package code QCC10B
- RoHS compatible
- Approx. weight 0.23 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 9 Input
- 10 Input ground
- 4 Output
- 5 Output ground
- 2, 7 To be grounded
- 1, 3, 6, 8 Case ground





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238.5 MHz

Data Sheet

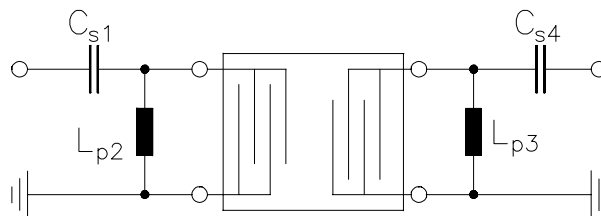


Characteristics

Operating temperature range: $T = -20$ to 85 °C
 Terminating source impedance: $Z_S = 50 \Omega$ and matching network
 Terminating load impedance: $Z_L = 50 \Omega$ and matching network

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	238.5	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	—	10.0	12.0	dB
1.0 dB bandwidth	$B_{1.0dB}$				
$\alpha_{rel} \leq 1.0$ dB		5.0	6.6	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 2.50$ MHz		—	0.5	1.0	dB
Phase linearity (rms)	$\Delta\phi$				
$f_N \pm 2.50$ MHz		—	0.9	2.0	°
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm 5.0$... $f_N \pm 9.0$ MHz		13	30	—	dB
$f_N \pm 9.0$... $f_N \pm 100.0$ MHz		47	55	—	dB
Temperature coefficient of frequency	TC_f	—	-18	—	ppm/K

Matching network to 50 Ω



$C_{s1} = 10.0$ pF
 $L_{p2} = 18.0$ nH
 $L_{p3} = 39.0$ nH
 $C_{s4} = 3.3$ pF

(Element values depend on pcb layout)



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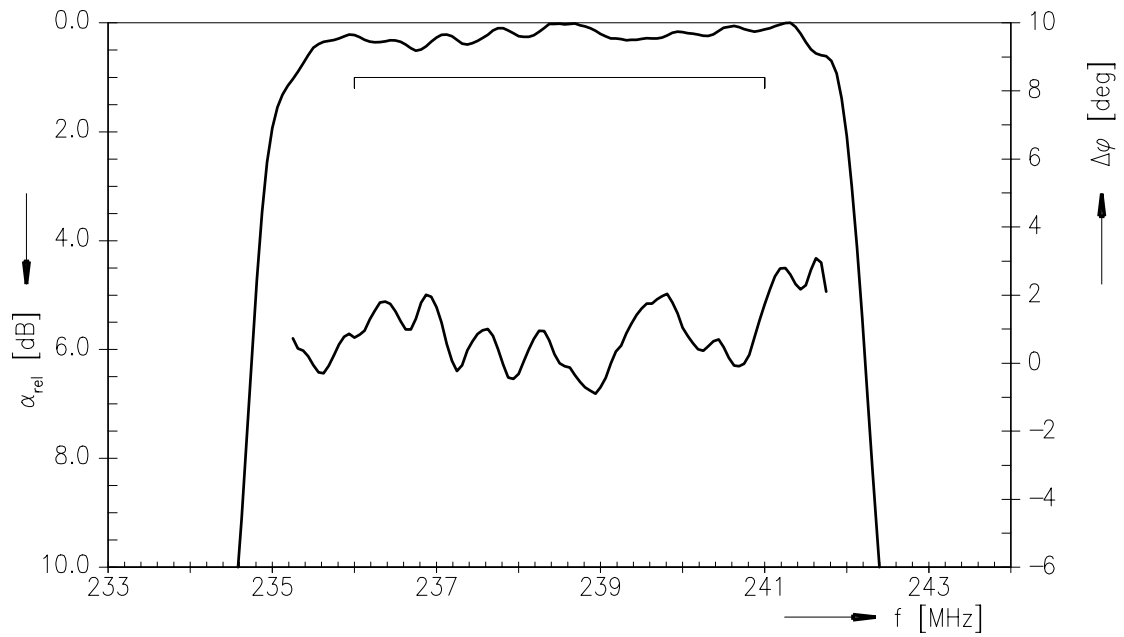
Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{sta}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	200 ¹⁾	V	machine model, 1 pulse
Input power	P _{IN}	10	dBm	

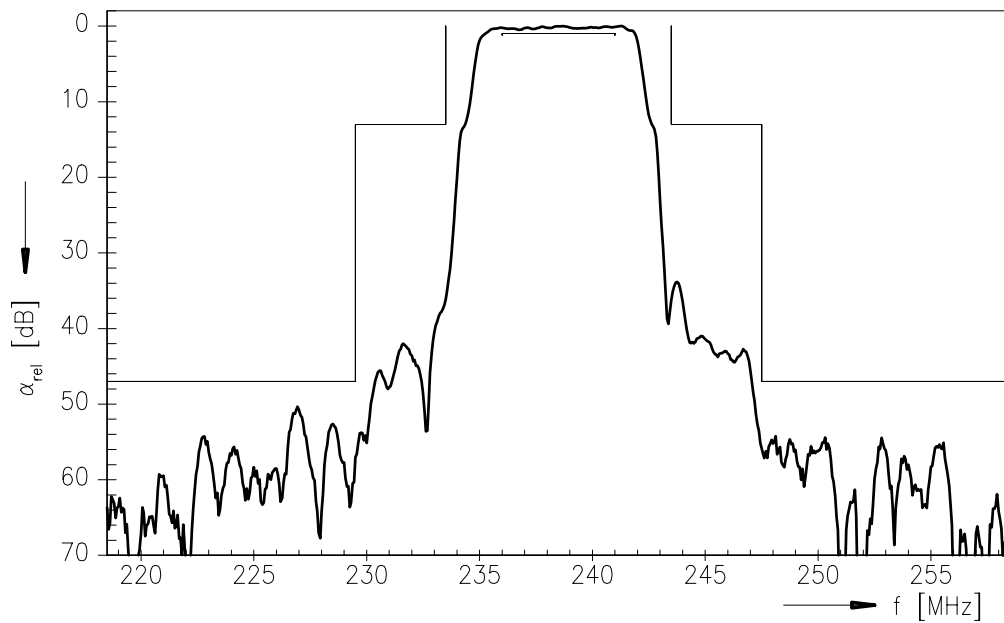
¹⁾ acc. to J-STD22A-0115A (machine model, 1 pulse +/-).



Transfer function



Transfer function (wideband)





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References

Type	B5043
Ordering code	B39241B5043Z710
Marking and package	C61157-A7-A49
Packaging	F61074-V8172-Z000
Date codes	L_1126
S-parameters	
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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